**Information Technology**

**Unit 4, Learning Outcome 1**

**Ch 6, Supporting information products and reviewing decisions, p 184**

**Problem Solving Methodology: ADDTDIE**

**Documentation**

**Characteristics of on-screen information products:**

**Previously, we developed a keyword for Elements of design for on-screen information.**

**Reference in this keyword was to Usability & accessibility and Appropriateness and relevance.**

**These two elements are also part of a high-quality user interface.**

1. The tools that are used by an interface designer for on-screen output are

* Screen
* A keyboard
* A mouse
* A touch screen
* Windows or Mac OS software

1. **Usability and Accessibility**
   1. The “usability” of the interface means that the user does not really notice the interface itself. The information is quickly found and the user is able to focus on the information rather than how they found it.
   2. Some factors relating to good usability design are:

* The screen layout should be unnecassaily elaborate and decorative
* Too many buttons, bullets, icons and rulers will confuse the eye and distract users.
* Long and wide screens should be avoided particularly if scrolling is required both across and down the screen.
* Appropriate fonts should be used, such as serif fonts for large amounts of text, which makes it easier to read. A sans serif font, with no tails is best to be used for headings.
* Two types of fonts should be used, as any more will make the document more confusing.
  1. Some factors that improve accessibility are:
* Simple and familiar symbols should be used for buttons.
* Common words should be used for labels, such as help for the help button.
* Instructions for navigating help files are included in some applications to ensure maximum accessibility.
* The information must be designed so that all users can access it.
* Website files should be small so that the webpage will load quickly.
  1. The role of macros is a series of commands or steps to build into a program, that can later be performed as a single command. Macros are used to automate a complex series into a single step. An example is that Microsoft excel, keying in Monday and Tuesday will allow the user to drag the fill handle to complete a list of days of the week.
  2. Building in redundancies in an on-screen design means that it will allow the user more than one way to perform the same action. For instance there may be a drop-down menu choose, all of which may perform the same action.

* 1. Software accessibility is catered for by using common software applications that are widely available such as Adobe reader. Websites should be designed so that they are compatible with any browser.

1. **Appropriateness and relevance**
   1. The information is appropriate when it meets the needs of its intended audience that is relevant to its purpose. It should provide relevant information that a typical user would need to know and the appropriateness is judged by how easy it is for the user to use and that the right information is in an appropriate place.
2. **Effective information architecture for an on-screen information product**
   1. Information architecture refers to the way that the information is structured and the ways it can be navigated by the user. The user may move through the information by keying a request into a search field into a search field or by clicking on icons ect.

**Techniques for visually representing decisions and actions,** **p 188**

1. **Concept-mapping software**

Such as inspiration can be used to show decisions that were made and actions that were taken to produce a solution.

1. **Flow charts**
   1. A flow chart is used to plan a process, or a series of steps. Each shape in a flow chart will mean a different thing.

* A diamond shape represents decision-making.
* A rectangle represents a process or action.

**Evaluating the effectiveness of decisions and actions, p 192**

Evaluation decisions made and actions taken during the problem-solving process.

1.Three factors are required for competent decision making are:

* Information- up to date information.
* Communication- information that is communicated clearly.
* Time- the information is produced on time.

**Evaluation criteria:**

Note for each of the following on page 195, figure 6.22, some evaluation criteria.

1. **Analysis**

* Was the problem correctly identified?
* Were all aspects of the problem considered?
* Was the problem statement clear and concise?
* Was the appropriate output identified?
* Was the data selected for use complete and from a reliable source?

1. **Design**

* Were the appropriate functions of the software used?
* Were all designs complete?
* Was the chosen software appropriate to produce the desired output?

1. **Development**
   1. In the development stage the designs need to be followed carefully. Care must be taken to avoid input errors that will lead to output errors. Regular backups need to be done to ensure the integrity of the solution.

* 1. The **domino effect** is when falling behind on one stage of the project, can cause subsequent stages to fall behind as well, which can be difficult to catch up on.
* Were the designs followed accurately?
* Was data entered accurately and validated?
* Were regular backups made?
* Were the legal obligations met in regard to ownership and privacy?

1. **Testing**

* Did the choice of test data allow data validation techniques to be thoroughly tested?
* Were test results compared with the expected results in a test plan, and errors rectified?
* Did the choice of test data allow other functions of the solution to be tested thoroughly?

1. **Documentation**

* Was an appropriate on-screen user documentation completed to support the users of the solution?

1. **Implementation**

* Was a working solution completed by the deadline?

1. **Evaluation**